CITY OF ENCINITAS
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Submittal Requirements Checklist for Permitting of Electric Vehicle Charging Stations [EVCS)

This checklist is provided to guide applicants through a streamlined permitting process for Electric Vehicle Charging Stations (EVCS).

1. Approval Requirements

a) The Building Department will conduct the plan review and inspection for EVCS installations.

b) Planning Department plan review approval is not required for EVCS installations unless the Building Official determines that the proposed EVCS will have a specific, adverse impact upon the public health or safety.

c) Fire Department plan review and inspection approval is not required for EVCS installations unless the system includes a stationary storage battery system as defined in the CA Fire Code.

2. Submittal Information

a) All forms and checklists described herein are available on the City of Encinitas web site located at: https://encinitasca.gov/I-Want-To/Applications-Information

b) A Building Permit Application form is required for all EVCS installations.

c) One copy of this checklist must be completed and submitted to the City of Encinitas along with the Building Permit application. Please provide an explanation for any checklist item not completed or met.

d) Provide three (3) sets of plans for the proposed EVCS (11"x 17" plan size; 1/8" = 1'-0" minimum scale, 9 pt. Arial or equal font size or 1/8" minimum neatly hand printed lettering). Plan submittals shall include, but not be limited to:

1) A Title Page

2) A Site Plan ***[Not required for Level One or Level Two EVCS equipment installed within an an existing one- or two- family residential structure (i.e. garage or carport)].***

3) An Electrical Floor Plan ***[Not required for exterior EVCS equipment installations].***

4) A Single-Line Electrical Diagram ***[Not required for Level 1 charging station installations].***

5) EVCS Manufacturer Installation Details and Specifications.

6) Electrical Service Load Calculations.

3. General Requirements for EVCS to be Shown and Noted on Plans

Use the following checklist items for preparation and submittal of your plans. The level of detail and the specific plan requirements will depend upon the extent, nature and complexity of the work to be done. All applicable checklist items must be noted or specified on the plans. Indicate the plan sheet number where the applicable requirement is shown or specified.

4. **Type of EVCS (please check one)**

Check One	Type of Charging Station(s) Proposed	Power Levels (proposed circuit rating)
☐	Level	110/120 volt alternating current (VAC) at 15 or 20 Amps
☐	Level 2 - 3.3 kilowatt (kW) (low)	208/240 VAC at 20 or 30 Amps
☐	Level 2 - 6.6kW (medium)	208/240 VAC at 40 Amps
☐	Level 2 - 9.6kW (high)	208/240 VAC at 50 Amps
☐	Level 2 - 19.2kW (highest)	208/240 VAC at 100 Amps
☐	DC Fast Charging	440 or 480 VAC
☐	Other (Specify and provide details):	

5. Submittal Requirements Checklist for EVCS

PERMIT APPLICATION REQUIREMENTS	
Yes O No O	1. The permit application is complete with the following information: • Project address and parcel number, • Owner name, address and phone number; • Contractor name, address and phone number and contractor's license number; and • Other information requested on the permit application form?
Yes O No O	2. An electrical load calculation is included with the permit application? (CEC[1] 220)
Yes O No O Yes O No O N/A O	3. Based on the required load calculation[2], is an electrical service panel upgrade required? If yes, do plans show and specify the electrical service panel upgrade?
Yes O No O	4. The EVCS branch circuit conductor is appropriately sized for a continuous load of 125% of the EVCS equipment plus any other non-continuous loads per CEC 210.19?

[1] CEC means the 2019 California Electrical Code

[2] Load Calculation: The size of the existing service MUST be equal to or larger than the minimum required size of main service breaker as determined by the load calculations required by CEC article 220. If the existing service panel is smaller than the minimum required size of existing electrical services, then a new upgraded electrical service panel must be installed in order to handle the added electrical load from the proposed EVCS.

PLANS	GENERAL
Yes O No O	5. The drawings are: • drawn to scale; • on a paper size not less than 17" wide by 11" high (36" x 24" preferred); • oriented in landscape orientation; • are printed with text with not less than 9 point Arial font size or equal or 1/8" minimum neatly hand printed lettering?
Yes O No O	6. The plans include a **Title Page** with property information including, but not limited to: • address of property; • name, address, phone number of the property owner; • name, address, phone number and license number of the person responsible for the EVCS system design; • codes applicable to the project; • occupancy and use of the facilities; and • narrative description and scope of the proposed work?
Yes O No O N/A O [3]	*7.* A **Site Plan** is included with the permit application and includes the following information? ***[Not required for Level One or Level Two EVCS equipment installed within an existing one- or two-family residential structure (i.e. garage or carport)]:*** • Location and name of structure(s) on the site; • Property lines, streets, lot dimensions, north arrow, the distance from property lines to structures and the proposed EVCS equipment; • Dimensioned parking improvements, driveways, etc.; • EVCS equipment, main electric service panel, disconnects and overcurrent protection locations; • Underground conduit locations and routing; • Location of additional meter, if applicable; • All site related accessibility requirements prescribed by CA Building Code (CBC) Sections 118-228 and 118-812 are shown and fully specified. ***[Applicable only to commercial facilities, public and common use areas, public accommodations and public housing as defined in the CA Building Code.]*** • Detailed and specific site of all related proposed work. ***[See additional requirements below.]***

[3] N/A means Not Applicable to this project.

Yes ○ No ○ N/A ○	• An **Electrical Floor Plan** is included with the permit application and includes the following information? ***[Not required for exterior installations.]*** • Plan view of the location of the proposed EVCS equipment including the use of the space or area where the EVCS will be installed. • All applicable electrical plan related requirements of CEC Article 625 are shown or specified on the plan; • All electrical plan related accessibility requirements prescribed by CA Building Code (CBC) Sections11B-228 and 118-812 are shown and fully specified. ***[Applicable only to commercial facilities, public and common use areas, public accommodations and public housing as defined in the CA Building Code.]*** • Detailed and specific plan of all related proposed work. ***[See additional requirements below.]***
Yes ○ No ○ N/A ○	9. A **Single-Line Electrical Diagram** is included with the permit application and includes the following information? ***[Not required for Level 1 charging station installations.]*** • List and label all EVCS supply equipment; • Conductor and conduit size, type and location; • Size of the over current device (circuit breaker) supplying the EVCS; • The size and location of the main electric panel, distribution panels (sub panels), overcurrent protection, disconnects, additional meters, and EVCS equipment; • The type (level), voltage and ampacity for each charging station; • All equipment labeling requirements per CEC 625.15.
Yes ○ No ○	10. Two (2) sets of the **EVCS Manufacturer Installation Details and Specifications** are included with the permit application?
Yes ○ No ○ N/A ○	11. Two (2) copies of **Electrical Service Load Calculations** are provided for sizing of the electrical service panel pursuant to CA Electrical Code (CEC) Article 220? ***[NOTE: Make sure to include 125% of the EV charging station load in the calculation.]***
Yes ○ No ○ N/A ○	12. If the EVCS equipment is listed for charging electric vehicles that require ventilation for indoor charging, is a **Mechanical Plan** showing and specifying all of the ventilation requirements prescribed by CEC 625.52 included with the permit application?
Yes ○ No ○	13. The project site is located outside of a 100 year flood hazard zone? ***[NOTE: If the charging equipment is located within a 100 year flood hazard zone, the EVCS equipment shall be elevated above the base flood elevation. The base flood elevation must be determined and an elevation certificate submitted by a registered land surveyor.]***
PLANS	**2019 CALIFORNIA ELECTRCIAL CODE - MINIMUM PLAN REQUIREMENTS**
Yes ○ No ○ Sheet# _____	14. The plans indicate that the installation shall meet all requirements of the 2019 California Electrical Code - Article 625 for Electric Vehicle Charging Systems.

Yes ○ No ○ Sheet# _____	15. The plans identify the amperage and location of the existing (or new) electrical service panel and the service panel is sized in accordance with the electrical service load calculations? (CEC 220)
Yes ○ No ○ Sheet# _____	16. The plans indicate the size of the service entrance conductors?
Yes ○ No ○ Sheet# _____	17. The plans indicate that the charging equipment shall have a Nationally Recognized Testing Laboratory (NRTL) approved listing mark? (UL 2202/UL 2200)
Yes ○ No ○ Sheet# _____	18. The single-line electrical diagram shows and specifies the required overcurrent protection for the proposed EVCS?
Yes ○ No ○ Sheet# _____	19. Conduit and conductor size and type are specified and the routes and requirements for their installation (i.e. within framing, mounted to structures, underground, etc.) are shown?
Yes ○ No ○ Sheet# _____	20. The plans specify that the electric vehicle charging system shall be installed in accordance with manufacturer's installation instructions and shall be suitable for the environment (indoor/outdoor) in which they will be installed?
Yes ○ No ○ Sheet# _____	21. The plans specify where the labeling of the EVCS equipment (i.e. "FOR USE WITH ELECTRIC VEHICLES", "VENTILATION NOT REQUIRED", "VENTILATION REQUIRED", etc.) is required? (CEC 625.15)
Yes ○ No ○ N/A ○	22. An approval letter by SDG&E is provided to the building department if a dedicated electrical meter is to be installed for the electric vehicle charging system?***[NOTE: If a single mast will continue to be used to serve two meters, ensure that the service entrance conductors are sized for the sum of the two meters, in accordance with CEC Article 310.]***
Yes ○ No ○ N/A ○ Sheet# _____	23. If the EV charging equipment is rated more than 60 amps or more than 150V to ground, the plans specify that the disconnecting means shall be lockable open and shall be provided in a readily accessible location? (CEC 625.42)
Yes ○ No ○ Sheet# _____	24. The plans specify that the EVCS equipment disconnecting means shall be identified with a durable label stating "Emergency Power Off — Electric Vehicle Charging Station"? (CEC 110.21)
Yes ○ No ○ Sheet# _____	25. The plans specify that the main service conductors and the equipment for the protection of electrical service (i.e. disconnecting means, overcurrent protection, etc.) will be installed in accordance with CEC Article 230?
Yes ○ No ○ N/A ○ Sheet# _____	26. If trenching is required, a trenching detail is provided on the plans showing compliance with the minimum cover requirements pursuant to CEC 300.5? ***[NOTE: Trenching for electrical feeders from structure to structure must comply with CEC 225.]***

Yes ○ No ○ N/A ○ Sheet# _____	27. Physical protection such as a bollard is shown and detailed on the plans when vehicle impact protection for EVCS equipment is required? (CEC 110.27 (B)) ***[NOTE: Typically not required for Level 1 EVCS. Physical protection from damage is often 4"diameter steel pipe filled with concrete, a minimum of 40" above the finished floor/grade, installed in a footing measuring 12" in diameter and 3' deep.]***
Yes ○ No ○ Sheet# _____	28. The plans show and specify the mounting height for the charging coupling (the connector nozzle) and the operable controls? ***[NOTE: If installed indoors, the electric vehicle charging coupling shall be located between 18" and 48" above the finished floor. If installed outdoors, the electric vehicle charging coupling shall be located between 24" and 48" above the finished grade. (CEC 625.50 and CBC 11B-309)***
Yes ○ No ○ N/A ○ Sheet# _____	29. If the EVCS is installed within in a building containing an R (residential) occupancy, the plans show and specify the location for all required smoke and carbon monoxide alarms Within the dwelling(s)? (CBC 907.2.11, CBC 915, CRC R314 and CRC R315)
PLANS	**2019 CALGREEN REQUIREMENTS**
Yes ○ No ○ N/A ○	30. Does the number of proposed electric vehicle charging spaces conform to the Tier 1 requirements of California Green Building Code (CGBC)? (CGBC A4.106.8.2 and A5.106.5.3) ***[Only applies to <u>newly constructed</u> multi-family residential and newly constructed non-residential projects.]***

PLANS	2019 CALIFORNIA BUILDING CODE ACCESSIBILITY REQUIREMENTS
Yes ○ No ○ N/A ○	***[NOTE: Accessibility requirements are required for public and common use areas, public accommodations, commercial facilities and public housing as defined in the CA Building Code.]*** The plans show and specify all of the applicable accessibility requirements prescribed in CBC Chapter 11B, including but not limited to the requirements of the following sections:
Yes ○ No ○ N/A ○ Sheet# _____	• 11B-202.4 (Path of Travel Requirements in Alterations, Additions and Structural Repairs) **[See 11B-202.4 Exception 10 for Path of Travel Requirement Exceptions]**
Sheet#_____ Sheet#_____ Sheet#_____ Sheet#_____ Sheet#_____ Sheet#_____ Sheet#_____ Sheet#_____ Sheet#_____ Sheet#_____ Sheet#_____ Sheet#_____ Sheet#_____ Sheet#_____ Sheet#_____	• 11B-228.3 (Electric Vehicle Charging Stations); • 11B-302 (Floor or Ground Surfaces); • 11B-303 (Changes in Level); • 11B-305 (Clear Floor or Ground Space); • 11B-308 (Reach Ranges); • 11B-309 (Operable Parts); • 11B-402 (Accessible Route); • 11B-703.3 (Braille); • 11B-703.7 (Symbols of Accessibility); • 11B-703.7.2.1 (International Symbol of Accessibility); • 11B-707.2 (Clear Floor or Ground Space); • 11B-707.3 (Operable Parts); • 11B-707.7.2 (Characters); • 11B-707.9 (Point-of-Sale Devices); • 11B-812 (Electric Vehicle Charging Stations)?

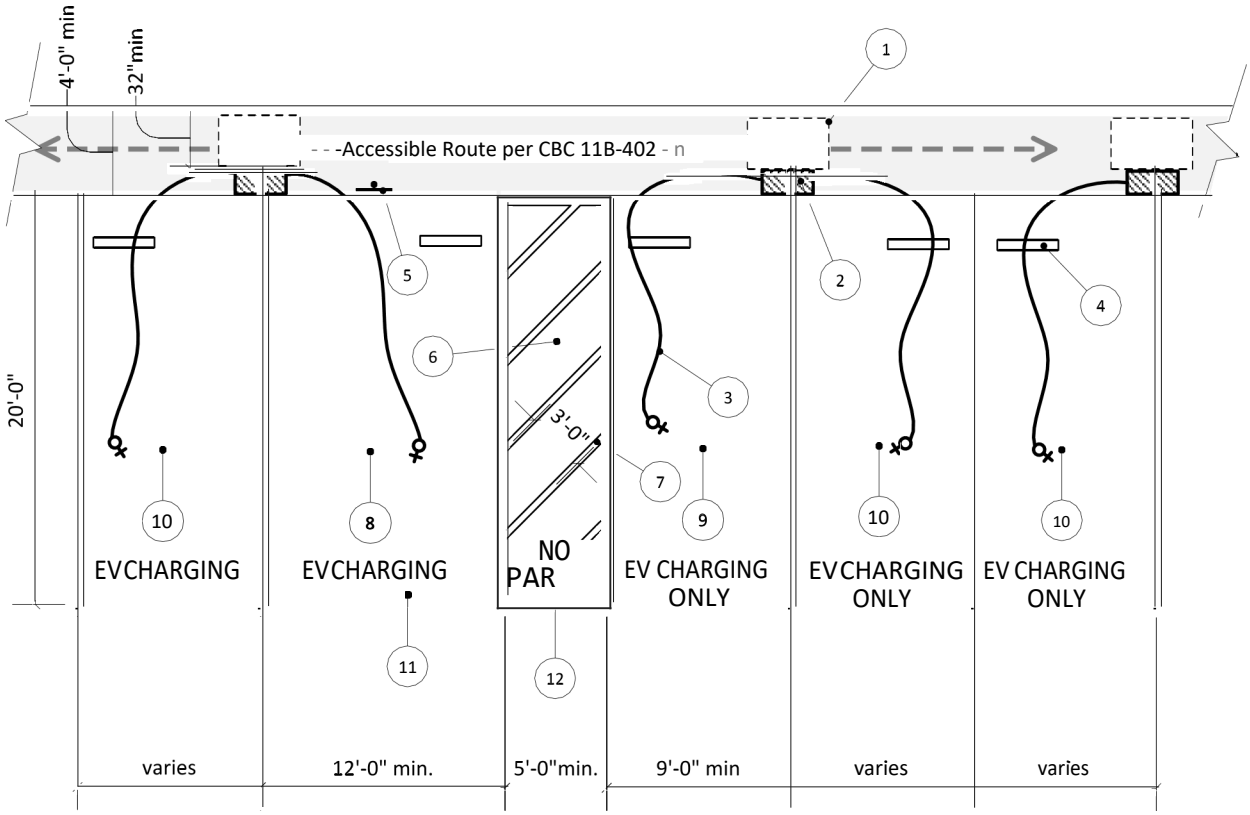
Electrical plans shall be completed, stamped and signed by a California Licensed Electrical Engineer or a C-10 electrical contractor.

Project Address

Name of person completing the Checklist (Please Print)

Signature

Electrical Engineer or Contractor's License Number and Type



Typical Electric Vehicle Charging Station Configuration for Public Use

See 2019 CA Building Code Sections 11B-812 and 11B-228.3 for additional requirements

KEY LEGEND

1 30" x 48" clear space for parallel approach (CBC 118-302).

2 Electric Vehicle Charging Station (EVCS)(see CBC 11B-228.3 & 11B-812 for requirements).

3 Electric Vehicle Charging Station coupling (nozzle) and conductor.

4 Wheel stop.

5 70 sq. in reflectorized International Symbol of Accessibility (ISA) sign required at van accessible charging station when 5 or more EVCS spaces are provided. "Van Accessible" sign shall also be provided. (see CBC 11B-812.8 for additional requirements)

6 60" minimum width access aisle located on the passenger side of a van accessible space and at the same level as the adjacent vehicle space. (CBC 11B-812.7)

7 Contrasting border and 36" maximum on center diagonal hatched lines designating the access aisle. Access aisles borderlines and hatched lines for EVCS spaces shall not be blue. (CBC 11B-812.7.2)

8 Minimum 144" wide by 216" long van accessible lined EVCS space (ISA sign and "Van Accessible" sign required). (CBC 118-812.6.1 and 11B-812.8)

9 Minimum 108" wide by 216" standard accessible lined EVCS space (ISA sign not required unless 26 or more EVCS are provided). (CBC 118-812.6.2)

10 EVCS space not regulated by CBC 11B-812.

11 12" high "EV CHARGING ONLY" surface marking at the end of each EVCS space. (CBC 118-812.9)

12 12" high "NO PARKING" surface marking within the access aisle. (CBC 11B-812.7.3)

6. Plan Review

Permit applications must be submitted on line through the cities web portal at : https://portal.encinitasca.gov/CustomerSelfService#/home . Permits eligible for expedited review will receive priority to be reviewed with processing goal of 1 to 3 business days.

7. Inspections

Once all the permits to construct the EVCS have been issued and the system has been installed, it must be inspected before final approval is granted for the solar system. On-site inspections can be scheduled by calling (760) 633-2739 before 3:00pm for next day inspection.

Permit holders must provide the inspector with the Building Department Approved Job Plans, the Building Permit Inspection Record Card and access to the location of the work. The permittee must be prepared to show conformance with all technical requirements in the field at the time of inspection. The inspector will verify that the installation is in conformance with applicable code requirements and the approved plans.

8. Departmental Contact Information

For additional information regarding this permit process, please consult our departmental website at https://encinitasca.gov/Government/Departments/Development-Services/Planning-Division/Building or contact the Building Division at (760) 633-2730.